TST Issues Brief: Sustainable cities and human settlements[1]

I.   Stocktaking

Key trends

Humanity is now half urban and expected to be nearly 70 per cent urban by 2050[2]. For the SDGs to be globally relevant they must be relevant to city-dwellers. Indeed, Member States' responses to the questionnaire on the Sustainable Development Goals (SDGs) show that cities are one of their top priorities[3]. 60 per cent of the area expected to be urban by 2030 remains to be built, indicating that the shape of future cities must be guided proactively.[4] If current trends hold, cities in the developing world with at least 100,000 people will expand up to *three times* their present size. Policymakers need to adopt a wider view of cities' use of space and resource footprints and to connect local development with global impact to achieve long-term urban sustainability[5].

The majority of population growth in cities is the result of natural increase, rural-urban migration and the reclassification of formerly non-urban areas. It is also predominantly taking place in cities in developing countries, most notably in Africa and Asia[6]. These growth trends are most pronounced in small to intermediate-sized cities, where infrastructural backlogs are often highest and technical and financial capacity the lowest.[7] Rapidly growing cities will have to be even more innovative than those in the past in terms of how they take advantage of the efficiencies and innovation from agglomeration within an increasingly resource-confined environment. Slowly growing cities in the developed world also have their part to play in reducing per capita resource use and emissions, in many cases by retrofitting existing, obsolete infrastructure and promoting more sustainable patterns of consumption and production.

Rather than achieving greater efficiency, most cities are forfeiting much of their potential agglomeration advantages related to concentration and connectivity and are instead losing density. From 1990-2000, cities around the world grew spatially faster than their populations; those in the developing world grew 20% faster[8]. As cities lose density and sprawl they lock themselves into unsustainable land use patterns where jobs and people are far from one another, transportation costs and congestion are high, infrastructure runs are longer and more costly, segregation of socioeconomic groups and land use types are more pronounced and environmental impacts are greater. During the next two decades the world will more than double the amount of land used for cities. It is important to build this new urban fabric sustainably because once it is built change is slow and difficult.

Social and environmental implications

These conditions are being experienced in increasingly unequal ways, especially among women, female-headed households, youth, children, and other marginalized groups such as the poor, people living with HIV/AIDS, stigmatized ethnic groups, the elderly and people with disabilities. Lack of secure tenure disproportionately affects the poor, particularly poor children. Exposure to pollutants and living in areas contaminated by industrial waste or close to heavy traffic are highly correlated to mortality and developmental delays for children. High degrees of transience, crowding, insecurity and poor conditions in many urban settings can mean high levels of stress, undermining social capital, and ultimately resulting in lower levels of reciprocity, higher rates of crime and violence and lower life expectancy. The destruction of cultural resources, including built heritage and creative industries, also degrades urban living.

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[1] The Technical Support Team is co-chaired by the Department of Economic and Social Affairs and the United Nations Development Programme. This issues brief was co-led by UN-Habitat and UNEP with the participation of ECLAC, ESCAP, IFAD, ILO, UNDP, UNFPA, UNICEF, UNISDR, UN-Women, WHO, WMO, and the World Bank.
[2] UN/POP/EGM-URB/2008/01. An overview of urbanization, internal migration, population distribution and development
[3] A/67... Secretary-General's Initial Input to the Open Working Group on Sustainable Development Goals
[4] Secretariat of the Convention on Biological Diversity (2012): *Cities and Biodiversity Outlook*, SCBD, Montreal.
[5] UNFPA (2007): *State of the World's Population: Unleashing the Potential of Urban Growth*. UNFPA, New York.
[6] UN-Habitat (2010): *State of the World's Cities: Bridging the Urban Divide*, UN-Habitat, Nairobi.
[7] UN-Habitat (2008): *State of the World's Cities: Harmonious Cities*, UN-Habitat, Nairobi.
[8] Seto et al (2011): *A Meta-Analysis of Global Urban Land Expansion*, PLoS ONE.

In cities, wealth and poverty are increasingly segregated. Inequalities occur in many areas but are frequently consolidated in the spatial trap of slums. This is particularly the case in the developing world. There are now roughly one billion slum dwellers, including one third of the population of the developing world, who contend with economic, social and physical exclusion. Slum dwellers experience one or more poor housing conditions (e.g. lack of durable housing and secure tenure, insufficient living spaces) and/or lack of access to basic services (e.g. adequate clean water, sanitation, personal security). Lack of access to health, adequate food, education and employment opportunities, decent transport, access to credit and the rule of law often further entrenches them in poverty. As a result, slum dwellers may not be able to attain full citizenship. Women and youth are generally even worse off.

Between 2002 and 2007, 60 per cent of urban residents in developing countries also reported being victims of a crime. Women, children and youth -- especially girls -- face particular risks in this context, including increased vulnerability and exposure to discrimination, harassment and violence in public and private space[9]. Other stigmatized groups (e.g. indigenous people, migrants, LGBT people, people living with disabilities or HIV/Aids, sex workers, etc.) also bear the brunt of these risks, especially because of limited access to information, services and justice.

Unplanned urbanization not only affects people, but also vulnerable agricultural land and ecosystems on which human wellbeing also depends. Despite the positive efficiencies of compactness, cities remain large-scale consumers of water, energy, and natural and processed products as well as significant generators of greenhouse gas emissions and waste. For many in the developed world and the rich all over the world, per capita resource use and emissions remain high. But beyond overconsumption and inefficiency, the materials flows in many cities are linear rather than circular. By any measure waste production is outpacing the earth's carrying and regenerative capacity. This is particularly problematic as the world has entered an era of resource scarcity that requires us to do more with less. In general, fossil fuel prices have risen steadily since the late 1990s. The future sustainability of cities in terms of energy supply, their role in meeting global emission reduction targets and their ability to participate in the carbon economy are by no means automatic.[10]

Other vulnerabilities relate to the form of urban development in which peripheral dispersion, proliferating transport lines and piecemeal speculative development are primarily responsible for the fragmentation, degradation and destruction of natural habitat. In addition to the impact on communities and non-human species, they also undermine the ecosystem services that support much 'hard' urban infrastructure. This type of development also exacerbates urban vulnerability to climate change impacts, including weather and geological hazards. Cities are some of the most vulnerable areas to natural disasters: well over half of coastal areas are urbanized[11] and 21 of the world's 33 megacities lie in coastal flood zones.[12] The risks in cities differ due to density, weak local governance structures and the location of urban slums, thus requiring different solutions for improved sanitation, disaster preparedness and increased food and nutrition security. Regrettably, despite a rapidly changing climate, many urban areas are designed on the basis of past weather-related information and without regard for disaster impact. As a result, coastal cities may face unforeseen challenges such as sea-level rise leading to the displacement of unprotected populations. Worst yet, poor urban populations must often resort to unsustainable coping strategies and mechanisms.

Opportunities and approaches
Yet with 60% of their area still to be built before 2030, cities represent unparalleled opportunity. The report of the Secretary-General's High Level Panel on the post-2015 development agenda states that 'cities are where the battle for sustainable development will be won or lost.' It also highlights that 'cities are the world's engines for business and innovation. With good management they can provide jobs, hope and growth, while building sustainability.' The urban future has great potential for humanity in terms of greater equitability, economic growth, strengthened social cohesion, improved environmental outcomes and human development. Urbanization is also linked to poverty reduction.[13] MDG Target 7(d) has shown the benefit of focusing on slums,

[9] UN-Women *Safe Cities Free of Violence Against Women and Girls Global Programme*
[10] UNEP (2012): *Sustainable, Resource Efficient Cities: Making it happen*, UNEP, Nairobi
[11] McGranahan et al, 2005.
[12] UN-Habitat (2007): *State of the World's Cities: The Millennium Development Goals and Urban Sustainability*, UN-Habitat, Nairobi
[13] World Bank/International Monetary Fund (2013): *Global Monitoring Report*, World Bank, Washington DC

but additional slum dwellers indicate the need to more systemically address the sheer scale and pace of urbanization.[14] Infrastructure choices made today will have critical implications for the future sustainability of cities across the world. If disaster impact assessments inform infrastructure investments, cities will benefit from long-term resilience to hazards.

The Rio+20 outcome document emphasized the need for holistic urban development approaches for delivering sustainability.[15] Because global urban land cover is growing more quickly than urban population, better integrated urban and territorial planning and governance will have to focus on aspects of space and configuration that are unaddressed in other SDG proposals. A focus on improved governance and more integrated sectors are insufficient on their own. Other approaches to urban sustainability – e.g. resource efficiency and management, material flows analysis, the ecosystem approach, climate diagnostics and planning, energy inventories and risk management – would complement this spatial framework, including those discussed in other issues briefs, e.g., sustainable transport, energy, climate change and disaster risk reduction, sustainable consumption and production, sustained and inclusive economic growth and infrastructure development and industrialization.

Integrated planning and design are transformative and must continue to set the stage for sustainable cities. Indeed without them infrastructural and behavioural lock-in frequently occur, making attempts at later reconfiguration difficult and expensive. In contrast, well-planned, compact cities that offer a mix of land uses, building typologies, transport and jobs generally also offer higher levels of well-being at lower rates of resource use and emissions; the very core of the principles of a green economy endorsed at Rio+20.[16] Decoupling of this nature can be achieved by resource efficient cities that would better manage material flows and resource use, despite the increase in demand for products and services.[17] High density, mixed use urban living with accessible jobs can actually shrink ecological footprints by reducing energy and material consumption per capita. Well-planned, intelligently designed cities that integrate sustainable use of surrounding and far-flung ecosystems and resources therefore have the potential to improve the lives of half the planet's people today, and 80% by 2030. Place-based, gender-responsive urban design can also create safe public spaces and non-motorized transit systems, promoting both social cohesion and safety in areas with the world's most concentrated diversity. Reducing violence and fear of violence can greatly increase freedom of movement, particularly for women and girls.

Harnessing the positive potential of urbanization can maximize human development and wellbeing, while minimizing environmental impact. This requires intervention at multiple scales, i.e. national, regional and local, with the city-region as geographical key to implementing solutions beyond administrative boundaries. It also requires strengthened partnerships with national governments, civil society, community-based organisations, international organizations, academia and private sector entities in the urban sphere. It also calls for a territorial development approach that fosters two-way links across the urban-rural continuum and creates economic opportunities and enhanced quality of life in rural areas. Cities' efficient delivery and use of facilities and amenities can also help promote secure ecosystem services and rural prosperity through improved mobility and access.[18] Well-developed and managed rural-urban infrastructural, economic, and social linkages are also critical to enable rural areas to provide vital goods (including food) and services to urban centres. Localized food systems including in mid-size towns can promote these links through trade, local procurement and rural employment.

Sustainable urban development requires transformative policies at multiple levels of governance. It also demands a multi-sectoral, multi-stakeholder approach that engages the private sector, civil society, foundations, local authorities and higher levels of government as well as regional and global networks of cities. With the benefit of decentralization, city governments are playing an increased role in ensuring wellbeing for their citizens. Indeed, local government is the closest to citizens and best placed to promote cultural diversity and safeguard living heritage. Many cities are adopting comprehensive urban policies for livelihood

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[14] United Nations (2013): *The Millennium Development Goals Report*, United Nations, New York
[15] A/RES/66/288. The Future We Want, ¶134-137. ¶110 also emphasized the need to strengthen rural-urban linkages.
[16] UNEP (2011): *Towards a Green Economy: Pathways to Sustainable Development*, UNEP, Nairobi
[17] As advocated by UNEP. See http://www.unep.org/resourceefficiency/Policy/ResourceEfficientCities/tabid/55541/Default.aspx
[18] A/68/202. A Life of Dignity for All

opportunities, innovative energy development, creative economy growth and responsive service delivery and reflecting cultural values in their planning processes. Efforts to enhance capacities, strengthen legal authority and improve fiscal bases are also essential. Inclusive, accountable local governance maximizes urban benefits.

Cities are the engines of growth and centres of innovation, and as such they are poised to be the driving force of global sustainable development. But for them to contribute meaningfully to the eradication of poverty they will also have to provide better access to decent employment opportunities and adequate social protection systems. Safety nets are fundamental to promoting social inclusivity. Urban development policies must therefore favour people-centred enterprise development. As dense nexuses of civil society, academia and the private sector, cities are well placed to ensure alignment between educational supply and labour market demand.

II.   Overview of proposals

Current proposals for reflecting sustainable cities in the SDGs fall along three complementary lines, beginning with securing a dedicated goal on sustainable cities. An SDG on sustainable cities could be transformative and integrated, which have been proposed in a report of the Secretary-General as criteria for all goals. The Sustainable Development Solutions Network (SDSN) details how an urban SDG could transform challenges into opportunities, mobilize and empower urban actors, integrate planning with economic development and converge design with service delivery.[19] Such a goal could be productively complemented by the inclusion of urban targets in other goals. These could be further supported by urban/rural disaggregated indicators throughout the SDGs.

Dedicated goal on sustainable cities
UN-Habitat (December 2012) has proposed the goal of 'promot[ing] cities that are environmentally sustainable, socially inclusive, economically productive and resilient', with the following targets set for 2030: (1) national urban policies for territorial cohesion and urban-rural linkages; (2) decelerated urban sprawl; (3) prevalence of urban design and public space; (4) reduced proportion of people living in slums; (5) urban residents voting in local elections and using participatory approaches; (6) reduced rate of urban violent crime; (7) cities with policies on urban job creation, particularly for youth and women; (8) reduced time and expenditure on travel, access to public and non-motorized transport and reduced traffic-related deaths; (9) renewable energy and recycled waste and improved energy efficiency in buildings; (10) universal access to drinking water and reduced untreated waste and waste water; and (11) policies and plans for strengthened resilience.[20] See http://www.unhabitat.org/downloads/docs/11858_1_594728.pdf

Global Task Force of Local and Regional Governments for Post-2015 and Habitat III, (March 2013) suggested that '[t]he new development agenda…acknowledge local and regional governments as a specific sphere of government and as key actors of development…addressing global and local challenges' and recommended eight objectives: (1) good local and regional governance; (2) food security and nutrition; (3) universal basic service provision; (4) local economic development, job creation and sustainable consumption and production; (5) urban planning and design, territorial cohesion and climate change resilience; (6) culture as an enabler of development; (7) protection and management of biodiversity and natural resources; and (8) decentralized cooperation between local governments. See http://www.uclg.org/sites/default/files/ENG_Press_Release_UCLG_Global_TFnew%20%281%29.pdf

Sustainable Development Solutions Network (SDSN, June 2013) has recommended a goal of '[e]mpower[ing] inclusive, productive and resilient cities', addressing their social, economic and environmental dimensions. Such a goal would include three targets: (1) eliminate extreme urban poverty, expand employment and productivity, and raise living standards, especially in slums and informal settlements; (2) ensure universal access to a secure and affordable built environment and basic urban services: housing, water, sanitation and waste management; low-carbon energy and transportation; and communication; and (3) ensure safe air quality and water quality for all, and integrate reductions in

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[19] Sustainable Development Solutions Network: *Why we need an urban sustainable development goal*
[20] UN-Habitat is currently refining this proposal pursuant to comments from Member States and relevant organizations.

greenhouse gas emissions, efficient land and resource use, and climate and disaster resilience into investments and standards. See http://unsdsn.org/files/2013/
06/130613-SDSN-An-Action-Agenda-for-Sustainable-Development-FINAL.pdf

Mayors Adaptation Forum *Bonn Declaration of Mayors* (June 2013) 'urge[s] nations to adopt a universal Sustainable Development Goal for cities and announce[s its] readiness to collaborate with all local government networks and global partners to ensure its implementation as part of the post-2015 development agenda. Accordingly, it 'invite[s] local governments to develop and implement a holistic ecosystems-based approach for developing city-region food systems that ensure food security, contribute to urban poverty eradication, protect and enhance local level biodiversity and…strengthen urban resilience and adaptation.' See http://resilient-cities.iclei.org/fileadmin/
sites/resilient-cities/files/Resilient_Cities_2013/MAF_2013_Bonn_Declaration_of_Mayors.pdf

Supplementary targets on sustainable cities
World Health Organization (May 2012) has highlighted the health co-benefits of improved housing, land use patterns and energy-efficient transport and proposed urban health indicators related to urban ambient pollution, urban burden of disease, pedestrian and bicyclist deaths and access to modern energy sources. See http://www.who.int/hia/health_indicators/en/

Global Task Force of Local and Regional Governments for Post-2015 (May 2013) also recommended developing a set of goals and targets related to inequalities, culture and the environment, with indicators that localize the global agenda, and reflecting the vision of Local and Regional Governments. See http://www.uclg.org/sites/default/files/NY%20Communiqu%C3%A9%20FINAL.pdf

Global Consultation on Population Dynamics, Outcome Document (June 2013) recommended four targets for liveable and sustainable cities for growing populations: (1) access to essential amenities and services, e.g. land, public space, housing, water, sanitation, energy, health and education; (2) strengthened linkages between rural and urban areas and within cities through infrastructure development; (3) minimized environmental impact through limiting urban sprawl and promoting energy efficient buildings and infrastructure; and (4) systematically use population data and projections for planning. See http://www.iom.int/files/live/sites/iom/files/What-We-Do/docs/Outcome-Report-Pop-dynamic-and-post-2015-dev-agenda-14-March-2013.pdf

Habitat for Humanity (June 2013), in its analysis of the High Level Panel's Report to the Secretary General, reiterated its recommendation that adequate housing and slums be included explicitly amongst the sustainable development goals and targets.

Mainstreaming urbanization
The High Level Panel, in its Report to the Secretary-General, (May 2013) identified urbanization as a significant trend that must be harnessed if sustainable development is to be achieved at a global scale. 'This matters because inclusive growth emanates from vibrant and sustainable cities, the only locale where it is possible to generate the number of good jobs that young people are seeking.' Furthermore, '[t]he post-2015 agenda must be relevant for urban dwellers. Cities are where the battle for sustainable development will be won or lost.' It thus recommends 'a local, geographic approach to the post-2015 agenda', 'disaggregating data by place and giving local authorities a bigger role in setting priorities.' Cities are one of six important cross-cutting areas to be reflected across multiple goals. See http://www.un.org/sg/management/pdf/HLP_P2015_Report.pdf

The **United Nations Global Compact** (June 2013) also lists urbanization as a key to addressing resource scarcity and access to infrastructure and services. See http://www.unglobalcompact.org/
docs/news_events/9.1_news_archives/2013_06_18/UNGC_Post2015_Report.pdf

Previous Open Working Group sessions with specific relevance to cities – e.g. employment, food security and nutrition, health, population dynamics and water and sanitation – have articulated, to varying degrees, their intrinsic connections with cities. Some have proposed specific urban targets. Future OWG sessions on the

topics of infrastructure, energy, governance, transport and sustainable consumption and production also provide the opportunity to explore urban linkages and their subsequent reflection in goals and targets

III.   Possible suggestions on the way forward

In the quest for sustainable development, a focus on cities and human settlements is unique because it foregrounds space and place as well as the subsidiarity of local government. Cities constitute the arena where action is concretized. As engines of growth they are transformative; they concentrate the institutions and infrastructure required to bring about change. As hubs of peer-to-peer learning and knowledge sharing they are integrative; their championing of innovative approaches strengthens institutions and builds capacities. As homes for a majority of the world's people, they are universal. One promising way to reflect this in the development of an SDG on sustainable cities would be to highlight core targets *not addressed* in other SDG proposals. These unique targets (e.g. urban sprawl, public space, slum reduction, shelter, safety – particularly of women, youth, children and LGBT people -- mobility, resilience and air pollution reduction) might form the basis of a dedicated SDG on cities.[21]

To help forge consensus, the development of an SDG on sustainable cities might also incorporate emerging themes and recommendations from the Thematic Consultations held over the past year. For example, the Consultation on Population Dynamics highlighted that by anticipating urban growth and leveraging agglomeration advantages cities can accommodate increased demographic demands – including the youth bulge – at the same time as they strengthen linkages to rural regions. Participants in the Inequalities Consultation suggested that cities tackle urban segregation through inclusive policies and participatory decision-making that includes children. In Environmental Sustainability, participants highlighted the need to address unplanned urbanization, rural-urban migration and the disaster risks it drives as well as evolving climate conditions. And in Governance, participants discussed localizing sustainable human development.

Alternatively, the OWG might consider constructing a dedicated goal on cities along the lines of the issues discussed in paragraphs 134-7 of *The Future We Want*. These paragraphs outline the following urban subthemes: affordable housing, infrastructure and slum upgrading; cultural heritage and urban revitalization; participatory decision-making; urban safety and health; sustainable transport and energy and green space; water and sanitation; resilience; urban planning and design; and partnerships for sustainable urban development.

Beyond the SDG process itself, achieving sustainable cities will require interlinking different sectoral challenges and adopting more relevant, evidence-based policies based on population data.[22] It will also require better awareness-raising and participation, especially of women, youth and the poor, in efforts such as city-wide slum profiling and household counting.[23] Cities must continue to challenge the dominant model of urbanization that is based on cheap fuel, minimal regulation and gated communities as quick fixes for shocks, instability and crime. Prioritizing mixed uses, non-motorized transit and cohesive public space will help. Many cities and metropolitan areas are already investing in innovation, modernizing their infrastructure and capitalizing on their efficiencies.[24] Countries should also support them by adopting proactive national urban policies and enhancing the capacities of urban actors to address the challenges of city-regions. To achieve post-2015 sustainability, cities will also need to better engage the real estate industry to share land value and kerb speculation. They will have to adopt more sustainable business models for the equitable delivery of services. And they will have to plan and design more innovatively for even greater resource efficiency. But they cannot do it alone.

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[21] These topics will be explored further in a LAMG-hosted expert group meeting planned for 5-6 December in New York
[22] Such data should be disaggregated by spatial unit (e.g. city, neighbourhood, district) as well as by demographic group.
[23] Shack/Slum Dwellers International *Community Planning*. See http://www.sdinet.org/method-community-planning/
[24] Katz and Bradley (2013): *The Metropolitan Revolution*, The Brookings Institution, Washington DC